

Listing and Amendments to the Claims

This listing of claims will replace the claims that were published in the PCT Application:

1. (currently amended) An interface for connecting networks, comprising:
an interworking function provided between a wireless local area network (WLAN) and a ~~P~~ublic ~~M~~obile ~~L~~and ~~N~~etwork (PLMN) to provide communication interactions between the PLMN and the WLAN;
the interworking function further comprising a dual-protocol stack which interfaces the WLAN protocols and PLMN protocols to provide seamless communications between the WLAN and the PLMN such that an increase in available service bandwidth provided for users of the PLMN is maintained.
2. (original) The interface as recited in claim 1, wherein the interworking function is present within the WLAN.
3. (currently amended) The interface as recited in claim 1, wherein the PLMN includes one of a ~~U~~niversal ~~M~~obile ~~T~~elecommunications ~~S~~ystem (UMTS) or a ~~G~~eneral ~~P~~acket ~~R~~adio ~~S~~ervice (GPRS) system.
4. (original) The interface as recited in claim 1, wherein the interworking function communicates between the WLAN and the PLMN through a Gn interface.
5. (original) The interface as recited in claim 1, wherein the seamless communications include protocol compatibility between the WLAN and the PLMN.
6. (currently amended) The interface as recited in claim 1, wherein the interworking function functions as a logical ~~S~~erving ~~G~~eneral ~~P~~acket ~~R~~adio ~~S~~ervice (GPRS) support node (SGSN).
7. (original) The interface as recited in claim 6, wherein the interworking function is viewed by the PLMN as a logical SGSN within its own network.

8. (original) The interface as recited in claim 6, wherein the interworking function is viewed as a node within the WLAN by the WLAN when receiving information from the PLMN.
9. (currently amended) The interface as recited in claim 1, wherein the interworking function is coupled to a ~~G~~gateway ~~G~~general ~~P~~packet ~~R~~radio ~~S~~service (GPRS) support node (GGSN) via a GTP (gateway tunneling protocol) tunnel.
10. (original) The interface as recited in claim 1, wherein the protocol stack includes a user plane stack.
11. (original) The interface as recited in claim 1, wherein the protocol stack includes a control plane stack.
12. (currently amended) The interface as recited in claim 1, wherein the PLMN includes SM/GMM (session management (SM)/GPRS mobility management (GMM)) procedures which are reused in the WLAN due to the use of an adaptation layer in a mobile dual-protocol stack and in the IWF to WLAN interface to mimic the functionality of an RRC (~~R~~radio ~~R~~resource ~~C~~ontrol) protocol sublayer.
13. (currently amended) The interface as recited in claim 1, wherein the WLAN works with any ~~S~~serving ~~G~~general ~~P~~packet ~~R~~radio ~~S~~service (GPRS) or code division multiple access (CDMA) system.

14. (currently amended) A method for interfacing two wireless networks, comprising the steps of:

connecting a wireless local area network (WLAN) to a ~~U~~universal ~~M~~mobile ~~T~~telecommunications ~~S~~system (UMTS) network through an intra-PLMN (~~P~~public ~~M~~mobile ~~L~~and ~~N~~network) interface; and

interfacing the WLAN to the UMTS network by providing interfaces towards the UMTS and the WLAN using an interworking function such that communications received from the WLAN appear to be from a different ~~S~~serving ~~G~~general ~~P~~packet ~~R~~radio ~~S~~service (GPRS) support node (SGSN) and communications sent to the WLAN appear to be from within the WLAN.

15. (currently amended) The method as recited in claim 14, wherein the interworking function communicates with a ~~S~~serving ~~G~~general ~~P~~packet ~~R~~radio ~~S~~service (GPRS) support node (SGSN) of the UMTS network through a Gn interface.

16. (original) The method as recited in claim 14, wherein the interworking function creates seamless interactions between the UMTS network and WLAN by ensuring protocol compatibility between the WLAN and the UMTS network.

17. (currently amended) The method as recited in claim 14, wherein the interworking function functions as a logical ~~S~~serving ~~G~~general ~~P~~packet ~~R~~radio ~~S~~service (GPRS) support node (SGSN).

18. (original) The method as recited in claim 14, further comprising the step of viewing the interworking function as a logical SGSN from a same PLMN.